



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/447,284

11/23/1999

QINGHONG CAO

Cao 2-2-11-11-6

3630

46900

7590

06/03/2009

MENDELSON, DRUCKER, & ASSOCIATES, P.C.
1500 JOHN F. KENNEDY BLVD., SUITE 405
PHILADELPHIA, PA 19102

EXAMINER

LY, NGHI H

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

06/03/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/447,284	Applicant(s) CAO ET AL.	
	Examiner NGHI H. LY	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5,9,10,19,20 and 30-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,9,10,19,20 and 30-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/02/2009 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

Art Unit: 2617

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 2, 4, 5, 30-34, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (JP07212829A) in view of Borland et al (US 6,556,965) and further in view of Young, III (US 5,694,467).

Regarding claim 1, Sato teaches a cordless telephone (see Title and Abstract), comprising: a remote handset (see Drawing handset 37), a base unit matched to the remote handset (see Drawing base unit 24), and an audio player integrated within at least one of the remote handset and the base unit (see Title, Abstract and Detailed Description).

Sato does not specifically disclose an MPEG audio integrated within at least one of the remote handset and the base unit.

Borland teaches an MPEG audio integrated within at least one of the remote handset and the base unit (see Abstract, column 5, lines 37-40, column 4, lines 7-21, "MP3", and column 4, lines 48-66, "MPEG" and "MP3", also see column 3, line 65 to column 4, line 7, "MPEG" and see column 5, lines 24-28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Borland into the system of Sato in order to provide high quality audio signal (see Borland, Abstract).

The combination of Sato and Borland does not specifically disclose a summer adapted to digitally sum a digitally synthesized ring tone with an audio bit stream to

Art Unit: 2617

allow a user of said cordless telephone to hear said cordless telephone ringing along with music.

Young teaches a summer adapted to digitally sum a digitally synthesized ring tone with an audio bit stream to allow a user of said cordless telephone to hear said cordless telephone ringing along with music (see column 3, lines 18-21, column 4, lines 27-34, see “the present invention would operate identically with digital or other type telephones”, also see Abstract and column 2, lines 9-24, see “a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Young into the system of Sato and Borland in order to improve in sound headset systems and telephone headset systems (see Young, column 1, lines 7-9).

Regarding claim 2, the combination of Sato, Borland and Young teaches the MPEG audio player is integrated within the remote handset (see Sato, Title, Abstract and Detailed Description, and/or see Borland, column 5, lines 24-28).

Regarding claims 4 and 5, the combination of Sato, Borland and Young further teaches the MPEG audio player is an MP3 (see Borland, Abstract, “MP3”, column 4, lines 7-21, “MP3”).

Regarding claim 30, the combination of Sato, Borland and Young further teaches the base unit is adapted (i) to receive a telephone audio signal from a telephone line and (ii) to transmit the telephone audio signal to said remote handset (see Borland,

Art Unit: 2617

column 5, lines 24-28 and column 4, lines 27-33, see “storage in portable systems” and column 4, lines 43-47, see “playback”), and said summer is further adapted to digitally sum the telephone audio signal with the MPEG audio bit stream (see Young, column 3, lines 18-21, column 4, lines 27-34, see “the present invention would operate identically with digital or other type telephones”, also see Abstract and column 2, lines 9-24, see “a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone”).

Regarding claim 31, the combination of Sato, Borland and Young further teaches the telephone audio signal is monaural, the MPEG audio bit stream has a plurality of stereo channels (see Borland, column 5, lines 24-28 and column 4, lines 27-33, see “storage in portable systems” and column 4, lines 43-47, see “playback”), and the summer is adapted to digitally sum the monaural telephone audio signal into each of the plurality of stereo channels of the MPEG audio bit stream, such that a sense of balance in the user is improved (see Young, column 3, lines 18-21, column 4, lines 27-34, see “the present invention would operate identically with digital or other type telephones”, also see Abstract and column 2, lines 9-24, see “a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone”).

Regarding claim 32, the combination of Sato, Borland and Young further teaches both said MPEG audio player and said summer are jointly implemented as a single digital signal processor adapted to digitally sum the digitally synthesized ring tone with the MPEG audio bit stream (see Young, column 3, lines 18-21, column 4, lines 27-34,

see “the present invention would operate identically with digital or other type telephones”, also see Abstract and column 2, lines 9-24, see “a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone”).

Regarding claim 33, the combination of Sato, Borland and Young further teaches the digital signal processor is adapted to digitally sum the digitally synthesized ring tone with the MPEG audio bit stream by: (i) decoding the MPEG audio bit stream to produce a digital reconstructed audio signal, and (ii) digitally summing the digital reconstructed audio signal with the digitally synthesized ring tone to produce a digital summed audio signal (see Young, column 3, lines 18-21, column 4, lines 27-34, see “the present invention would operate identically with digital or other type telephones”, also see Abstract and column 2, lines 9-24, see “a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone”).

Regarding claim 34, the combination of Sato, Borland and Young further teaches the cordless telephone further comprises: a digital-to-analog converter connected to said digital signal processor to receive the digital summed audio signal and to produce an analog audio signal suitable for outputting to the user (see Young, column 3, lines 18-21, column 4, lines 27-34, see “the present invention would operate identically with digital or other type telephones”, also see Abstract and column 2, lines 9-24, see “a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone”).

Regarding claim 38, the combination of Sato, Borland and Young further teaches the step of digitally summing the digitally synthesized ring tone with the MPEG audio bit stream comprises: decoding the MPEG audio bit stream to produce a digital reconstructed audio signal, and digitally summing the digital reconstructed audio signal with the digitally synthesized ring tone to produce a digital summed audio signal (see Young, column 3, lines 18-21, column 4, lines 27-34, see “the present invention would operate identically with digital or other type telephones”, also see Abstract and column 2, lines 9-24, see “a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone”).

Regarding claim 39, the combination of Sato, Borland and Young further teaches digital-to-analog converting the digital summed audio signal to produce an analog audio signal suitable for outputting to the user (see Young, column 3, lines 18-21, column 4, lines 27-34, see “the present invention would operate identically with digital or other type telephones”, also see Abstract and column 2, lines 9-24, see “a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone”).

5 Claims 9, 10, 19, 20 and 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (JP07212829A) in view of Borland et al (US 6,556,965) and further in view of Young, III (US 5,694,467) and Tuoriniemi et al (US 5,978,689).

Regarding claims 9 and 19, Sato teaches a method of integrating an MPEG audio player in a cordless telephone (see Title and Abstract) comprising: playing of the

Art Unit: 2617

pre-loaded music from the remote handset of a cordless telephone (see Title, Abstract and Detailed Description), connecting a base unit of the cordless telephone to a public switch telephone network (the base unit of cordless telephone of Sato inherently connect to a public switch telephone network).

Sato does not specifically disclose a method of integrating an MPEG audio player in a cordless telephone and playing of the pre-loaded MP3.

Borland teaches a method of integrating an MPEG audio player in a cordless telephone and playing of the pre-loaded MP3 (see column 5, lines 24-28 and column 4, lines 27-33, see “storage in portable systems” and column 4, lines 43-47, see “playback”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Borland into the system of Sato in order to provide high quality audio signal (see Borland, Abstract).

The combination of Sato and Borland does not specifically disclose digitally summing a digitally synthesized ring tone with an audio bit stream to allow a user of said cordless telephone to hear said cordless telephone ringing along with music.

Young teaches digitally summing a digitally synthesized ring tone with an audio bit stream to allow a user of said cordless telephone to hear said cordless telephone ringing along with music (see column 3, lines 18-21, column 4, lines 27-34, see “the present invention would operate identically with digital or other type telephones”, also see Abstract and column 2, lines 9-24, see “a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from

Art Unit: 2617

the phone”), muting the playing of the music by an action initiated by a user (see column 2, lines 25-41 and Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Young into the system of Sato, and Borland in order to improve in sound headset systems and telephone headset systems (see Young, column 1, lines 7-9).

The combination of Sato, Borland and Young does not specifically disclose muting the playing of the pre-loaded music when the remote handset is active in a current telephone call.

Tuoriniemi teaches muting the playing of the pre-loaded music (see column 9, lines 17-20) when the remote handset is active in a current telephone call (see column 7, lines 49-55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Tuoriniemi into the system of Sato, Borland and Young so that the user won't miss the telephone call while enjoy listening to music.

Regarding claims 10 and 20, the combination of Sato, Borland, Young and Tuoriniemi further teaches muting pauses the playing of the pre-loaded music (see Tuoriniemi, column 9, lines 17-20).

Regarding claim 35, the combination of Sato, Borland, Young and Tuoriniemi further teaches the base unit receiving a telephone audio signal from the PSTN (see Sato, Title, Abstract and Detailed Description and the base unit of cordless telephone of

Art Unit: 2617

Sato inherently connect to a public switch telephone network), the base unit transmitting the telephone audio signal to the remote handset, and the remote handset digitally summing the telephone audio signal with the MPEG audio bit stream (see Young, column 3, lines 18-21, column 4, lines 27-34, see “the present invention would operate identically with digital or other type telephones”, also see Abstract and column 2, lines 9-24, see “a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone”).

Regarding claim 36, the combination of Sato, Borland, Young and Tuoriniemi further teaches the telephone audio signal is monaural, and the MPEG audio bit stream has a plurality of stereo channels (see Borland, column 5, lines 24-28 and column 4, lines 27-33, see “storage in portable systems” and column 4, lines 43-47, see “playback”), and the step of digitally summing the telephone audio signal with the MPEG audio bit stream comprises digitally summing the monaural telephone audio signal into each of the plurality of stereo channels of the MPEG audio bit stream, such that a sense of balance in the user is improved (see Young, column 3, lines 18-21, column 4, lines 27-34, see “the present invention would operate identically with digital or other type telephones”, also see Abstract and column 2, lines 9-24, see “a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone”).

Regarding claim 37, the combination of Sato, Borland, Young and Tuoriniemi further teaches the steps of (i) playing pre-loaded MP3 music from the remote handset of said cordless telephone (see Borland, column 5, lines 24-28 and column 4, lines 27-

Art Unit: 2617

33, see “storage in portable systems” and column 4, lines 43-47, see “playback”) and (ii) digitally summing the telephone audio signal with the MPEG audio bit stream are performed by a single digital signal processor (see Young, column 3, lines 18-21, column 4, lines 27-34, see “the present invention would operate identically with digital or other type telephones”, also see Abstract and column 2, lines 9-24, see “a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone”).

Response to Arguments

6. Applicant's arguments filed 03/02/09 have been fully considered but they are not persuasive.

On page 6 of applicant's remarks, applicant argues that Young provides no teaching or suggestion whatsoever regarding a synthesized ring tone and Young provides no teaching or suggestion whatsoever regarding an MPEG audio bit stream.

In response, Young does indeed teach summing a digital synthesized ring tone with an MP3 audio bit stream and MPEG audio bit stream to allow a user of a cordless telephone to hear the cordless telephone ringing along with music (see column 3, lines 18-21, column 4, lines 27-34, see “the present invention would operate identically with digital or other type telephones”, also see Abstract and column 2, lines 9-24, see “a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone”), and the combination of Sato, Borland,

and Young does indeed teach applicant's claimed limitations as recited in claims 1, 2, 4 and 5. In addition, claim 29 has been cancelled.

On page 8 of applicant's remarks, applicant argues that Tuoriniemi does not teach or even suggest "a summer to digitally sum a synthesized ring tone with an MPEG audio bit stream, as recited by claim 1.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, Young does indeed teach ring tone, a digitally synthesized ring tone, digitally summing a digitally synthesized ring tone with an audio bit stream and audio bit stream to allow a user of a cordless telephone to hear the cordless telephone ringing along with music (see column 3, lines 18-21, column 4, lines 27-34, see "the present invention would operate identically with digital or other type telephones", also see Abstract and column 2, lines 9-24, see "a user headset is connected to a mixer with audio input from a Music Source, a mic detecting ambient noise, and a ring tone from the phone"), Borland teaches an MPEG audio integrated within at least one of the remote handset and the base unit (see Abstract, column 5, lines 37-40, column 4, lines 7-21, "MP3", and column 4, lines 48-66, "MPEG" and "MP3", also see column 3, line 65 to column 4, line 7, "MPEG" and see column 5, lines 24-28), and the combination of Sato, Borland, Young and Tuoriniemi does indeed teach applicant's claimed limitations as recited in claims 9, 10, 19 and 20.

In addition, Tuoriniemi (see column 6, lines 39-54), where Tuoriniemi teaches *"This combined system of digital cellular telephone and audio device gives a user a hands-free option and virtually ultimate mobility to listen to an audio program while being able to hear telephone audio ring signals and initiate telephone calls through a common headset"*.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NGHI H. LY whose telephone number is (571)272-7911. The examiner can normally be reached on 9:30am-8:00pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

Art Unit: 2617

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nghi H. Ly

/Nghi H. Ly/
Primary Examiner, Art Unit 2617